

SOLAR SERIES VRLA BATTERY

The Solar series is designed for frequent cyclic charge and discharge applications under extreme environments. By combining the newly developed Nano Gel electrolyte with high density paste, the Solar series offers high recharge efficiency at very low charge current. The acid stratification is highly reduced by adding Nano Gel. This series is suit for energy storage for renewable energies such as PV, wind turbine power systems and CATV.



TECHNICAL SPECIFICATIONS

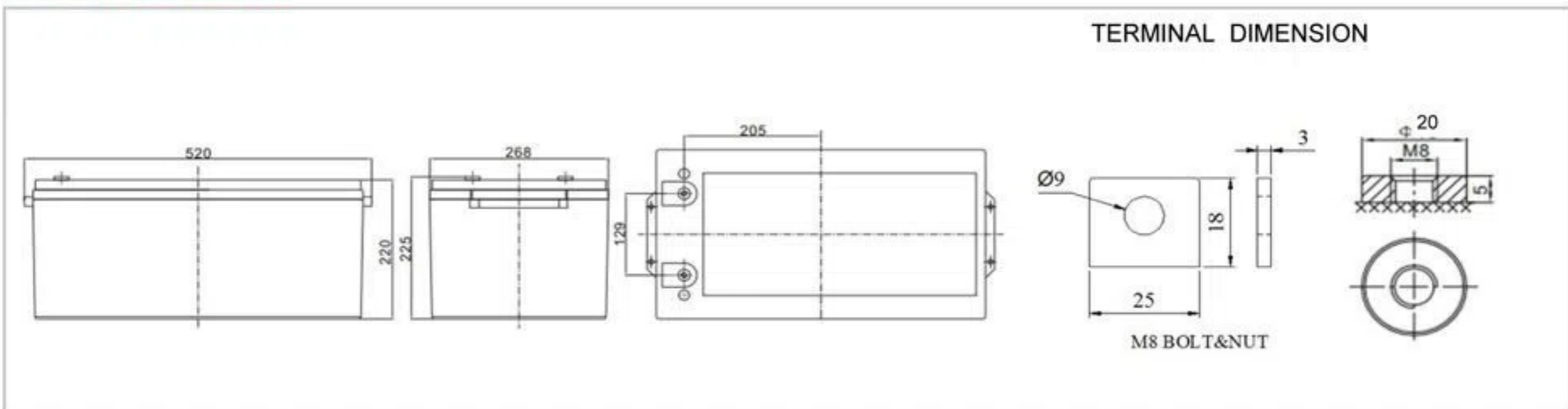
Nominal Voltage (V)	12
Nominal Capacity(25°C)	250Ah @ 10HR-rate (to 1.80Vpc)
Dimension(mm)	L520×W268×H220×TH225
Approx.Weight	68kg
Internal Resistance	Approx.4mΩ
Max.Charge Current	62.5A
Max.Discharge Current (5S)	2500A
Short Circuit Current	4625A
Self Discharge	Approx. 2.5% per month @ 20°C
Ambient Temperature	Discharge: -25~60°C Charge: -25~50°C Storage: -25~45°C
Float Charge Voltage	13.50~13.80V@25°C(-3mv/Cell/°C)
Equalize and cycle Use Charge Voltage	14.10~14.40V @25 C
Designed Floating Life (25 C)	10Years
Container Material	ABS(UL94-V0 Optional)



Complied standards

- IEC 60896-21/22
- GB/T19638
- IEC61427
- JIS C8704
- BS6290 part 4

BATTERY DIMENSIONS



BATTERY DISCHARGE TABLE

Constant Current Discharge Characteristics: Amps (25°C)								
F.V/Time	30min	1h	3h	4h	5h	8h	10h	20h
9.60V	272.5	148.8	64.5	50.0	41.4	29.0	27.5	14.3
10.20V	270.0	140.0	62.5	48.8	40.5	28.4	25.9	14.0
10.50V	252.5	136.3	61.0	48.0	40.0	28.1	25.5	13.8
10.80V	232.5	131.3	59.5	47.3	39.0	27.4	25.0	13.7
11.10V	207.5	123.8	57.5	45.8	38.0	26.7	24.4	13.5

Constant Power Discharge Characteristics: Watts (25°C)								
F.V/Time	30min	1h	3h	4h	5h	8h	10h	20h
9.60V	2984.0	1592.0	706.0	553.0	460.0	323.0	305.3	159.6
10.20V	2902.0	1554.0	703.0	552.0	460.0	323.0	294.0	159.0
10.50V	2841.0	1540.0	698.0	550.0	454.9	321.4	293.0	159.0
10.80V	2651.0	1503.0	690.0	550.0	454.0	319.0	291.0	159.0
11.10V	2397.0	1436.0	676.0	541.0	448.0	315.0	288.0	159.0

PARAMETERS FOR SOLAR & WIND APPLICATIONS

Long time discharge capacity for Solar & Wind applications

Capacity(Ah)	C ₂₄	C ₄₈	C ₇₂	C ₁₀₀	C ₁₂₀
Solar12-250	258.3	275.0	287.5	290.0	295.0
Final Voltage	1.85V				

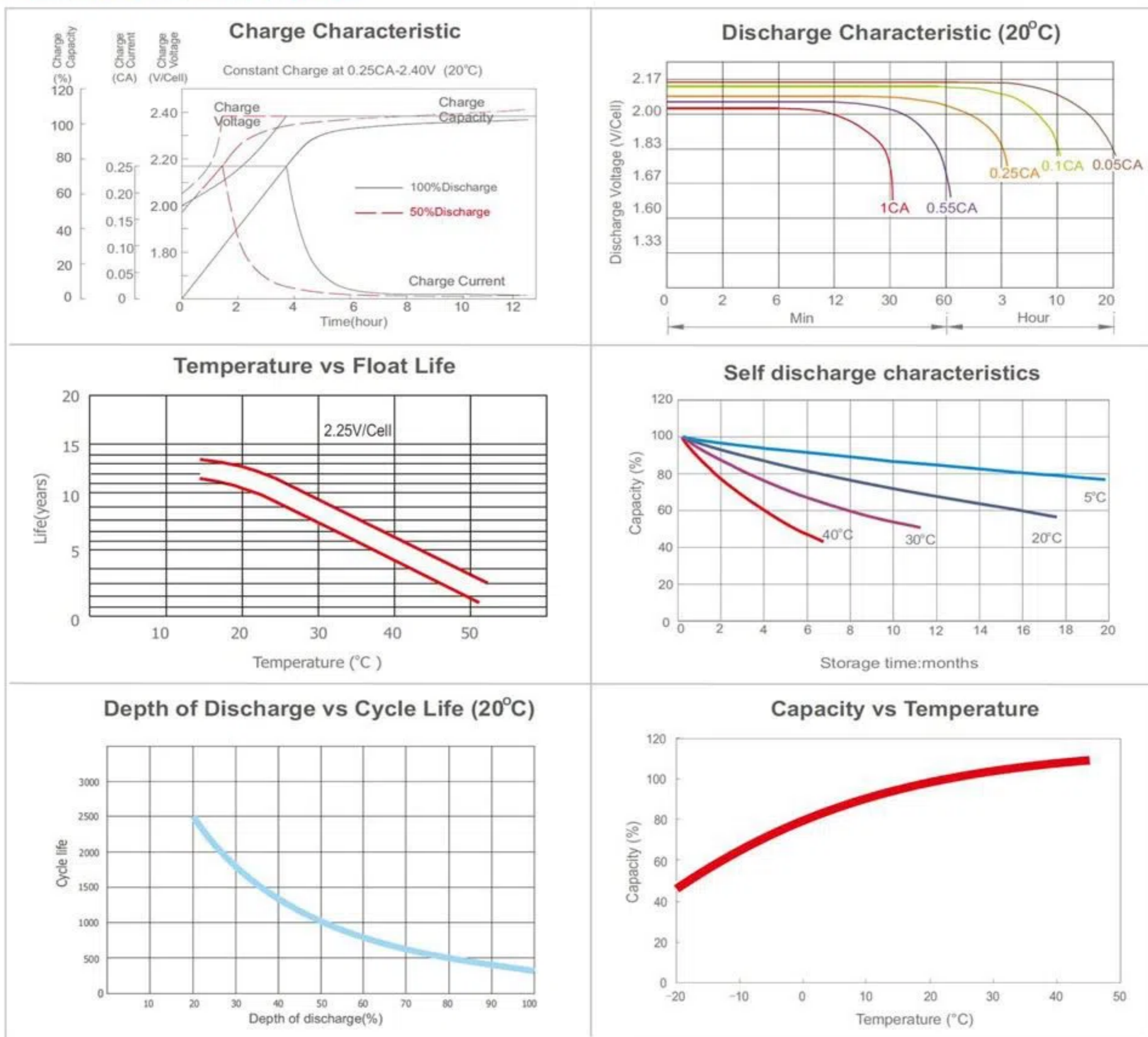
Solar & Wind applications parameters settings

Over voltage disconnect:	2.45±0.01V/cell @ 25°C
Regulation/equalize voltage:	2.40±0.01V/cell @ 25°C
Array reconnection voltage:	2.25±0.005V/cell @ 25°C
Float voltage setting:	2.27±0.005V/cell @ 25°C
Low voltage alarm voltage:	1.95±0.005V/cell @ 25°C
Low voltage disconnect:	1.90±0.005V/cell @ 25°C
Load reconnect voltage:	2.09±0.01V/cell @ 25°C
Temp. compensate coefficient:	-5mV/cell/°C



Solar12-250 (12V250Ah) VRLA GEL BATTERY

CHARACTERISTICS



FINAL VOLTAGE SETTINGS RECOMMENDED ACCORDING TO THE DISCHARGE CURRENT

Discharge Current I (A)	$I \leq 0.08C$	$0.08C \leq I < 0.2C$	$0.2C \leq I < 0.6C$	$0.6C \leq I < 1.0C$	$I \geq 1.0C$
Final of Voltage	$\geq 1.85V_{pc}$	$\geq 1.80V_{pc}$	$\geq 1.75V_{pc}$	$\geq 1.70V_{pc}$	$\geq 1.60V_{pc}$